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AUTHOR Koff, Robert H.; Warren, Richard L.
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ABSTRACT

Studies have demonstrated that students learn to seek pleasurable learning situations and learn to avoid painful ones; however, when they do not have sufficient information at their disposal to determine whether or not their behavior will have a pleasurable or painful outcome, they experience a psychological conflict we are calling "uncertainty." Such uncertainty is a function of inconsistency in teacher behavior. Inconsistency probably has a greater impact on the student when he first enters school, turning a significant percentage of students away from the process of schooling. Teachers have been observed to communicate consciously their expectations and then when making spontaneous decisions "under fire" to reveal contradictory expectations. Observations in a first grade classroom over a 3-week period produced several anecdotes to illustrate such inconsistency. The concept might be further examined in terms of a teacher's inappropriate or appropriate diagnosis of a situation and his subsequent dealing logically or illogically with the situation. Further exploration should produce a more operational definition and a typology for identifying and classifying teacher behavior which may contribute to uncertainty. Suggested questions: What teacher behaviors facilitate the acquisition of uncertainty? What are its effects on cognitive, affective, and social behavior? What personality characteristics describe a teacher who generates it? What ecological conditions foster it? (JS)

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PRE-THEORETICAL CONSIDERATIONS OF UNCERTAINTY: AN ASPECT OF CLASSROOM COMMUNICATION

by

Robert H. Koff
Stanford University

and

Richard L. Warren
Stanford University

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School of Education
Stanford University
Stanford, California

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Pre-theoretical Considerations of Uncertainty: An Aspect of Classroom Communication

by

Robert H. Koff and Richard L. Warren
STANFORD CENTER FOR RESEARCH AND DEVELOPMENT IN TEACHING
Stanford University

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Pre-theoretical Considerations of Uncertainty: An Aspect of Classroom Communication[1]

Schools, today, are deeply engaged in the problems of dislocation, dysfunction and fragmentation in modern life and are grimly searching for a viable response to destructive forces. Modern educational values appear to be reflected in the view that, however brutal, frustrating, and overwhelming life may at times be, schools must encourage and allow students to make and act on affirmative gestures. However, we are increasingly aware that the probability of students being able to experience successful affirmative gestures is still distressingly low--especially for some of our minority groups (Coleman et. al., 1966).

Cronbach defines an educational procedure as a system in which the materials chosen and the rules governing what the teacher does should be in harmony with each other and the pupil's qualities--important criteria for evolving meaningful classroom experiences. In this paper we are concerned with a category of classroom communication which appears to frustrate or delay affirmative gestures, a category characterized by a type of disharmony or incongruity--but what we choose to view as uncertainty. Our starting point is reflected in two traditionally different approaches to examining the problems of learning.

The first approach is concerned with the question of how and why we learn. Principal investigators of this question are experimental psychologists such as Thorndike, Tolman, Guthrie, Hull and Skinner. Inherent

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in this approach is the assumption that a human subject has no significant aversion to learning itself, and thus research ought to endeavor to isolate those conditions under which learning is best accomplished.

The second approach centers around the question of how and why we do not learn. Principal investigators of this question are clinicians such as Redl, Bettelheim, Erickson, Harris and Masserman. This approach assumes that no matter how favorable conditions for learning might be, (in terms, for example, of incentive and capacity) something is interfering with the inner learning mechanisms of the student and is preventing satisfactory learning.

Both of these approaches believe that students need to be motivated and that learning proceeds best when students are motivated. Motivation, according to Hilgard (1956), can be thought of as basically two kinds: (a) to obtain a pleasurable reward, or (b) to avoid pain. Numerous studies have demonstrated that students learn to seek pleasurable learning situations and learn to avoid painful ones. Thus, given that motivation towards pleasure and away from pain is powerful enough, pupils, given the capacity, can learn to seek or avoid almost anything. However, when students do not have sufficient information at their disposal to determine whether or not their behavior will have a pleasurable or painful outcome, they are in a psychological state which we are calling "uncertainty."

The purpose of this paper is to describe the phenomena that we have labeled "uncertainty." For the moment we are defining uncertainty as psychological conflict--a conflict directly related to whether or not one's behavior in a given situation will have a pleasurable or painful

outcome. Students are consistently forced to reexamine their conception of what behavior is expected of them. Such reflection does have its positive attributes, but when students become uncertain about how to think or behave "the next time," they have no performance criteria upon which they can determine whether their behavior will have a pleasurable outcome.

Uncertainty is, we feel, a function of inconsistency. For the present the definition of inconsistency is reflected in the terms changeable and contradictory, and for purpose of description and simplification, we will focus on inconsistency in teacher behavior--behavior that thwarts, we feel, the efforts of even the most sophisticated student to gain the information necessary to make decisions about what action he can take to obtain a pleasurable outcome. Inconsistency, of course, also has temporal attributes. That is, it may occur once or many times, or at a particular traumatic moment.

Inconsistency, and hence uncertainty, probably has a greater impact on the student when he first enters school. The centrality of the early years in laying the foundations for later developments in cognitive, affective and social behavior has been well established. Uncertainty, therefore, is a phenomenon which we postulate constitutes an "invisible curriculum," and it consists of an intricate network of experiences in classrooms which turn a significant percentage of students away from the process of schooling.

Certainly, students must learn that there are certain activities and certain conditions where it is important to remain uncertain--that old solutions may not work in dealing with new problems. But this

"cognitive" conceptualization is not the uncertainty that we are describing. Cognitive uncertainty concerns the question of whether a specifiable level of uncertainty is a necessary or sufficient condition for school success. Our concern is to understand the ways in which pupil-teacher interaction fosters doubt about whether a behavior, or a set of behaviors, will have a pleasurable or painful outcome for students. Teachers generate uncertainty when they are sufficiently inconsistent in their behavior so as not to provide students with the "data" they need to evaluate or predict under what conditions their behavior might have a pleasurable or painful outcome.

Studies by Getzels and Thelen (1960), Jackson and Lahaderne (1966, 1967), Kounin (1967), Biddle and Adams (1967), Bellack et. al. (1966) and others have begun to examine the manifold forces operative in the classroom. In particular, they describe the multiple decisions that teachers make while "under fire." These decisions are characterized by their spontaneity. In short, the classroom has been described as an interactive environment where the great majority of decisions that are made by the teacher during the course of a school day cannot be preplanned. It is this aspect of teacher behavior with which we are particularly concerned and for purposes of further clarification we want to offer very briefly some examples from observations in an elementary school of behavior that we are theorizing can be categorized as either eliciting uncertainty itself or as contributing to a sense of uncertainty. The observations were made in a first-grade classroom over a three-week period at the beginning of the school year. Our concern was to observe teacher-initiated communications which seemed poten-

tially capable of eliciting in the students a sense of uncertainty. These communications are, obviously, the most accessible kind of relevant phenomena and the first grade, at the beginning of the school year, was a logical place to begin.

We do not at this point propose to say how esoteric or commonplace our illustrative materials may be, nor do we want to make any claims about how typical or atypical this first-grade teacher is. The setting is typical; the family background of the pupils is characterized neither by poverty nor by extreme affluence. In this school there are four first-grade classes and this particular teacher is rated by the principal as the most competent of the first-grade teachers. She is in her late thirties, married and has had approximately twelve years of teaching experience. The data were gathered through naturalistic observations. The anecdotes presented here are selected from extensive field notes.

There were a number of behavioral norms which the teacher sought in the first few days to impose on the class and which, it appeared to us, seemed to create for the pupils a sense of uncertainty. One of these norms dealt with friendship; the teacher wanted the students to develop friendships within the class and with children from other grades. When the children came in from recess one day, she asked them what they had been doing. "How many of you used the swing?" "How many of you got a drink?" "How many of you saw a big brother or sister and hung around them during recess?" She paused and then went on, "Now let the older brothers and sisters play with their friends and you play with your friends in the first grade. You are growing up now and don't need

to be watched over so much by an older brother or sister. It is time for you to make new friends." She paused again and then went on, "Anyone without a friend? Anyone who is really new?" One girl and one boy raised their hands. The teacher said, "All right, the rest of you in the class will want to become friends with them." This is one message about "making friends."

But it was not the only communication they received with regard to peer relations. As they became more engaged in school work, they were confronted with a different norm. On the second day she handed out coloring sheets on which there were a ball and a boat. The instructions were to color the ball red and the boat blue. She reminded them that they were not to look at their neighbor's work, but to simply draw and color on their own sheets. As she walked down the aisle looking at the work, she said, "Someone is drawing the ball the wrong color. I'm not going to say who, though. Now, don't look at your neighbor. Don't look at your neighbor," she repeated, "because he doesn't know what's right." The next day the teacher arranged another coloring exercise and introduced it by saying, "I'm going to give you a paper to color. Now, when you start coloring, don't look at your neighbors. I can't tell how well you're doing if you're looking at your neighbors, so if you are not certain, show that you're not certain on your paper, and remember, if it's too messy, I'll throw it away." When they had a similar kind of exercise several days later, and had begun to work, she suddenly said, "Janie, look at Janie's paper. Bobby, cover up your paper so that Janie can't see."

The children are asked to make new friends in the classroom, but

these friends, especially if they are deskmates, are to be treated under certain circumstances with suspicion and avoidance. The teacher's behavior is characterized, it appears to us, by a sense of urgency--to socialize the children into patterns of behavior functional for what she feels are impelling pedagogical and administrative demands of classroom life. Contradictions inherent in such demands are not resolved through patience but acerbated through haste and inconsistency.

Teacher instructions created for the children other dilemmas, developing, for example, out of the interplay between academic responsibilities and family relations. When they first began learning about the new math--about sets and the difference between a numeral and a number, she said, "Your mommy and daddy may not be able to help you on all of this work, for example, the difference between a number and a numeral. This is part of your math homework, but it's something your mommy and daddy may not have had; however, an older brother or sister will know, because they've had this kind of work. You must study hard and learn so that you will know it when you are parents." Several days later, they received further instructions concerning what they might or might not expect from parents when doing homework. She asked them to look through old magazines and find pictures which began with the same sound as brown, black and blue. She said, "When you cut out these pictures, cut them out as neatly as possible. It's better to have one really neatly cut out picture than a lot of messy ones. Remember, I'm asking <u>you</u> to do it, <u>not</u> your mother or father. Even if it's messy, if <u>you</u> do it, I won't be so mad."

The established norm with respect to parental attitudes toward children is that parents are there to love, guide and help them. In these examples parents are presented as being either incompetent or ineligible to guide and help. Furthermore, criteria for neatness and messiness are confused with issues of parental assistance and the skill to be learned. It is probably obvious that this teacher exercises firm control in the classroom and is rather talkative--inclined to moralize at length about the kind of behavior she expects of her students. Nevertheless, our field notes indicate that these kinds of communications were manifest in other classrooms, if not characterized by quite so much verbiage.

Perhaps one final incident might be cited, one in which the pupils in this classroom were involved, but in which their teacher was only a spectator. The school was visited one day by a young lady from a nearby metropolitan zoo as a part of a countywide service provided by the zoo to elementary schools. She had brought with her five young animals: a baby lion cub, a baby goat, a baby chimp, a pigmy horse and a tortoise. Immediately after lunch, the primary grades gathered in the auditorium, sat down in a huge circle, leaving room for the young lady to enter with her cages and exhibit the animals. She took the animals out one by one and walked them around the circle, showing them to the children, talking about them and cautioning the children to be rather quiet so that they wouldn't scare the animals. She had finished with the chimp and the cub and had the goat out on a leash. By this time the children were ecstatic. Each new animal brought increased "Oh's" and "Ah's" and joyous laughter.

While the young lady was walking the goat around the floor, he suddenly began to urinate. This brought loud laughter from the children and, after a respectable pause, the teachers began to smile. The young lady maintained her composure, said she had something for this kind of emergency and immediately picked up some sawdust from a box and spread it on the floor. No sooner had she finished doing this, than the goat began to defecate. The children screamed with delight and the teachers, even more out of character, began to laugh. The young lady, however, was not amused. She was running out of sawdust, and understandably, was concerned that the noise might scare the animal. She stamped her foot and told them to be quiet. "Grow up. Let's not be so silly about this sort of thing. After all, you're house trained and you can go to the bathroom, but these animals aren't and there's no reason why you should be so silly and act like a, . . ." and here she paused. Apparently her outburst was running ahead of her fund of similes. Finally, she burst out, ". . . and act like a little old lady!" The children quieted down and became orderly. But they didn't look like little old ladies.

Our observations have been directed at understanding what are essentially problems of linkage between teacher and pupil behavior. Our illustrative materials are concerned with two forms of teacher inconsistencies: teacher-initiated and teacher response to pupil behavior. However, it was beyond the scope of the present paper to examine the functional and dysfunctional impact on the student of these forms of inconsistency.

Inconsistency, the substance out of which uncertainty is created,

might be examined in these three general forms: (1) the teacher makes an inappropriate diagnosis of a situation, but deals with it logically; (2) the teacher makes an appropriate diagnosis of a situation but deals with it illogically; (3) the teacher makes an inappropriate diagnosis of a situation and deals with it illogically. What we are suggesting here is the need to work out a more operational definition of inconsistency and a typology for identifying and classifying teacher behavior which may contribute to uncertainty. Such a typology must include elements of order, sequence, space, source and impact. Without regard at this point to problems of methodology and design, we consider the following questions useful guides to further exploration: (a) What teacher behaviors facilitate the acquisition of uncertainty? (b) What are the effects of uncertainty on student cognitive, affective and social behavior both within and outside the classroom? (c) What personality characteristics best describe a teacher who generates uncertainty? and (d) What are the ecological conditions that foster uncertainty?

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